

REDUNDANT CLOCK MODULE

ABSTRACT

A redundant clock module provides a highly reliable fixed clock reference output. This clock reference output is based on at least two internal reference oscillators that are monitored and eliminated from use if they are not operating or within tolerance requirements. The redundant clock module comprises at least two oscillators, detection circuitry, switching circuitry and control circuitry. If a primary oscillator fails or is out of tolerance, the redundant clock module will detect the failure or out of tolerance condition and switch to a secondary working and in tolerance oscillator to take over primary timing functions of an end user application. The redundant clock module provides a slow and seamless transition between oscillator switching to assure no significant phase shift or runt pulses will affect the end user application.

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